CHAPTER 2.2.XX.

WEST NILE FEVER

Article 2.2.XX.1.

West Nile fever (WNF) is a zoonotic disease caused by the mosquito-borne West Nile virus (WNV).

For the purpose of this Chapter the susceptible species are equidae, geese, ducks (under study) and chicks less than 12 days old and birds other than poultry.

Birds are responsible for virus dispersal, including reintroduction of WNV from endemic areas into regions that may subsequently experience sporadic outbreaks.

Although most avian species are susceptible to infection, the outcome of the infection is highly variable according to the species. Chickens and turkeys are usually resistant to disease and do not develop viremia sufficient to infect mosquitoes, with the exception of chicks less than 12 days old.

WNV is maintained in a mosquito–bird–mosquito transmission cycle, whereas humans and equidae are considered dead-end hosts. Most human infections occur by natural transmission from mosquitoes.

Many animal species are known to be susceptible to WNV infection and outbreaks of a fatal neurological disease have been reported in humans, equidae, geese and wild birds.

In relation to domestic animal trade, geese and ducks might represent a risk for the spread the WNF as some species have been documented to develop a viremia sufficient to infect mosquitoes.

WNV has been reported to date in a wide geographical range that includes portions of Europe, Asia, Africa, Australia and the Americas. Although competent vectors and susceptible bird species are nearly ubiquitous, WNV circulation in sylvatic cycles may spill over occasionally in domestic population.

Surveillance for WNF will be carried out according to Appendix 3.8.X.

The following defines the occurrence of WNF case:

1. WNV has been isolated and identified as such from an animal, including human; or

2. viral antigen or viral RNA specific to WNV has been identified in samples from one or more animals including human showing clinical signs consistent with WNF, or epidemiologically linked to a confirmed or suspected *outbreak* of WNF; or

3. antibodies to WNV that are not a consequence of vaccination, have been identified in an animal including human showing clinical signs consistent with WNF, or epidemiologically linked to a confirmed or suspected *outbreak* of WNF.

For the purposes of the *Terrestrial Code*, the *incubation period* for WNF shall be 3-15 days.

Standards for diagnostic tests and vaccines are described in the *Terrestrial Manual*.

Article 2.2.XX.2.

WNF infected country, zone or compartment

A WNF infected country, *zone* or *compartment* is a country, *zone* or *compartment* clearly defined where a case of WNF has been reported during the past 2 years

Article 2.2.XX.3.

WNF free country, zone or compartment

1. A country, *zone or compartment* may be considered free from WNF when WNF is notifiable in the whole country and either:

   a) no clinical WNF *cases* have been recorded for the past 2 years; or

   b) a surveillance programme in accordance with Appendix 3.8.X. has demonstrated no evidence of WNF in the country or *zone* or *compartment* during the past 2 years; or

   c) a surveillance programme has demonstrated no evidence of *Culex* mosquitoes in the country, *zone or compartment*.

2. A WNF free country, *zone* or *compartment* will not lose its free status through the importation from WNF infected countries, zones or compartment of:

   a) seropositive animals;

   b) semen, embryo or ova;

   c) animals vaccinated in accordance with the *Terrestrial Manual* at least 30 days prior to dispatch, and that the animals are identified in the accompanying certification as having been vaccinated; or

   d) animals not vaccinated if a surveillance programme in accordance with Appendix 3.8.X. has been in place in the source population for a period of 30 days immediately prior to dispatch, and no evidence of WNV transmission has been detected.

Article 2.2.XX.4.

WNF seasonally free country or zone

A WNF seasonally free country or *zone* is a country or a *zone* for which for part of a year, surveillance demonstrates no evidence either of WNV transmission or of adult *Culex* mosquitoes.

For the application of Articles 2.2.XX.6., the seasonally free period is taken to commence 21 days following the last evidence of WNV transmission (as demonstrated by the surveillance programme), or the cessation of activity of adult *Culex* mosquitoes.

For the application of Articles 2.2.XX.6., the seasonally free period is taken to conclude either:

1. at least 21 days before the earliest date that historical data show WNV transmission cycle has recommenced; or

2. immediately if current climatic data or data from a surveillance programme indicate an earlier resurgence of activity of adult *Culex*.

A WNF seasonally free country or *zone* will not lose its free status through the importation of animals or semen or embryo and ova from infected countries or zones.

Article 2.2.XX.5.

When importing from WNF free countries, *zones* or *compartments* *Veterinary Administrations* should require:

for susceptible species

the presentation of an *international veterinary certificate* attesting that:

1. the animals were kept in a WNF free country, *zone* or *compartment* since birth or for at least 30 days prior to shipment; or

2. the animals were kept in a WNF free country, *zone* or *compartment* for at least 7 days, were subjected, with negative results, to an agent identification test according to the *Terrestrial Manual*, with negative results, carried out on a sample collected at least 3 days after the commencement of the residence period and remained in the WNF free country, *zone* or *compartment* until shipment; or

3. the animals:

   a) were vaccinated in accordance with the *Terrestrial Manual* 30 days before introduction into the free country, *zone* or *compartment*; and

   b) were identified as having been vaccinated; and

   c) were kept in a WNF free country or *zone* for at least 7 days; and

   d) remained in the WNF free country or *zone* until shipment;

AND

4. if the animals were exported from a WNF free *zone*, either:

   a) did not transit through an infected *zone* during transportation to the *place of shipment*; or

   b) were protected from attack from WNV mosquito vectors at all times when transiting through an infected *zone*; or

   c) had been vaccinated in accordance with point 3 above.

Article 2.2.XX.6.

When importing from WNF seasonally free countries or *zones*, *Veterinary Administrations* should require:

<u>for susceptible species</u>

the presentation of an *international veterinary certificate* attesting that the animals:

1. were kept during the seasonally free period in a WNF seasonally free country or *zone* for at least 30 days prior to shipment; or

2. were kept during the WNF seasonally free period in a WNF seasonally free country or *zone* for at least 7 days prior to shipment, and were subjected during the residence period in the country or *zone* to an agent identification test according to the *Terrestrial Manual*, with negative results, carried out at carried out on a sample collected at least 3 days after the commencement of the residence period and remained in the WNF seasonally free country or *zone* until shipment; or

3. were kept during the seasonally free period in a WNF seasonally free country or *zone*, and were vaccinated in accordance with the *Terrestrial Manual* 30 days before introduction into the free country or *zone* against WNF, were identified as having been vaccinated and remained in the WNF seasonally free country or *zone* until shipment;

AND

4. if the animals were exported from a free country or *zone*, either:

    a) did not transit through an infected country or *zone* during transportation to the *place of shipment*; or

    b) were protected from attack from WNV mosquito vectors at all times when transiting through an infected country or *zone*; or

    c) were vaccinated in accordance with point 3 above.

Article 2.2.XX.7.

When importing from WNF infected countries or *zones*, *Veterinary Administrations* should require:

for susceptible species

the presentation of an *international veterinary certificate* attesting that the animals:

1. were protected from attack from WNV mosquito vectors for at least 30 days prior to shipment; or

2. were subjected to a serological test according to the *Terrestrial Manual* to detect WNV neutralizing antibodies with positive results; or

3. were protected from attack from WNV mosquito vectors for at least 15 days prior to shipment, and were subjected during that period to an agent identification test according to the *Terrestrial Manual*, with negative results, carried out on a sample collected at least 3 days after being introduced in the mosquito free *zone*; or

4. were vaccinated in accordance with the *Terrestrial Manual* at least 30 days before shipment, against WNV, and were identified in the accompanying certification as having been vaccinated; or

5. are not vaccinated and a surveillance programme in accordance with Appendix 3.8.X. has been in place in the source population for a period of 30 days immediately prior to shipment, and no evidence of WNV transmission has been detected;

AND

6. were protected from attack from WNV mosquito vectors during transportation to the *place of shipment*; or

7. were vaccinated 30 days before shipment or had antibodies against WNV.

Article 2.2.XX.8.

When importing wild birds, *Veterinary Administrations* should require the presentation of an *international veterinary certificate* attesting that:

1. the birds showed no clinical sign of WNF on the day of shipment; and

2. the birds were kept in a *quarantine station* in a mosquito-free environment for 30 days prior to shipment.

Article 2.2.XX.9.

Protecting animals from WNV mosquito vectors

When transporting animals through WNF infected countries or *zones*, *Veterinary Administrations* should require strategies to protect animals from attack from WNV mosquito vectors during transport, taking into account the local ecology of the vectors.

Potential risk management strategies include:

1. treating animals with chemical repellents prior to and during transportation;

2. ensuring *vehicles* do not stop en route unless the animals are held behind insect proof netting;

3. surveillance for vectors at common stopping and offloading points to gain information on seasonal variations;

4. integrated pest management practices at holding, common stopping and offloading points;

5. using historical, ongoing and/or WNF modelling information to identify low risk ports and transport routes.